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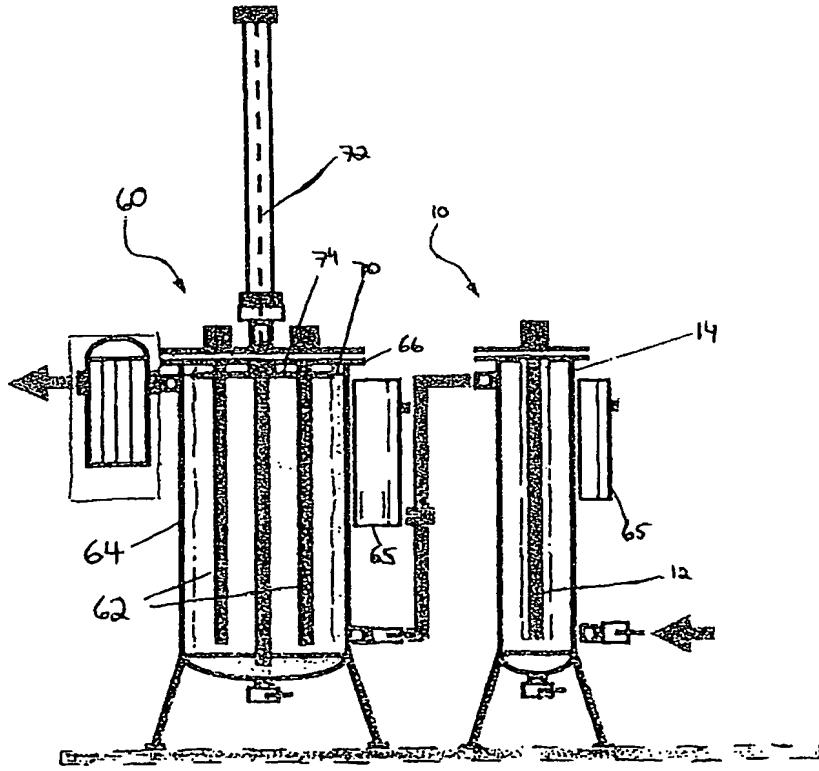
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(54) Title: A COMBINED ELECTROCHEMICAL SYSTEM FOR SCALE TREATMENT AND ERADICATING LEGIONELLA PNEUMOPHILA BACTERIA IN WATER SUPPLY SYSTEMS



(57) Abstract: A combined electrochemical system for scale treatment and eradicating bacteria in water supply systems having: (a) a first electro-chemical cell including: (i) a first metallic tank for receiving a water supply and forming a cathode of the first electro-chemical cell, and (ii) a first anode, disposed within the first tank; (b) a second electro-chemical cell including: (i) a second metallic tank for receiving an effluent from the first tank and forming a cathode of the second electro-chemical cell, and (ii) a second anode, disposed within the second tank; and (c) a DC electrical supply source operatively connected to the first and the second cells, wherein the first electro-chemical cell is operative for trapping bacteria in a colloid-like structure, and the second electro-chemical cell is operative for producing a pH above 12 near the walls of the second tank, so as to form a bacteria-containing precipitate on the walls of the second tank, thereby removing the bacteria from the water supply.